

DEPARTMENT OF NATURAL RESOURCES
AND CONSERVATION



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Cover Letter

August 25, 2011

TO: Governor's Office, Vivian Hammill, Rm. 204, State Capitol, P.O. Box 200801, Helena, MT 59620-0801
Environmental Quality Council, Capitol Building, Room 106, P.O. Box 201704, Helena, MT 59620
Dept. of Environmental Quality, Metcalf Building, P.O. Box 200901, Helena, MT 59620-0901
Director's Office
Dept. of Natural Resources and Conservation, 1625 11th Ave. Helena, MT 59620
Director's Office
Information Services Section
Water Resources Division, 1424 9th Ave., P.O. Box 201601, Helena, MT 59620-1601
Kraig VanVoast, Water Resources Div. Havre Office, 210 6th Ave., PO Box 1828, Havre, MT 59501
Denise Biggar, Water Res. Div. Glasgow Office, 222 6th St. S. PO Box 1269, Glasgow, MT 59230
Montana Dept. of Fish, Wildlife & Parks, 1420 E. 6th Ave. Helena, MT 59620
Director's Office
Patrick Gunderson, DFWP Region 6 Office, 54078 US Hwy 2 W Glasgow, MT 59230
Cody Nagel, DFWP Havre Area Resource Office, 2165 Hwy 2 East, Havre, MT 59501
Chad Barnard, Frenchman Water Users Association, 1054 Upper Frenchman Rd. Hinsdale, MT 59241
Montana Environmental Information Center, P.O. Box 1184, Helena, MT 59624
Montana Audubon Council, P.O. Box 595, Helena, MT 59624
Phillips County Commissioners, 314 S 2nd Ave. W., County Courthouse, Malta, MT 59538
Wildlife Federation, P.O. Box 1175, Helena, MT 59624
Trout Unlimited, P.O. Box 7186, Missoula, MT 59807
U.S. Army Corps of Engineers, 10 W. 15th St. Suite 2200, Helena, MT 59626
U.S. Fish & Wildlife Service, MT Field Office, 100 N. Park Ave. Helena, MT 59601

Ladies and Gentlemen:

The enclosed Environmental Assessment (EA) and Notice of Decision (NOD) have been prepared for the Frenchman Dam Sinkhole Repair Project and are submitted for your information and consideration. Please feel free to contact me at (406) 444-6622 (e-mail jdomino@mt.gov) should you have any questions or comments. Please note that due to the emergency nature of this project no official public comment period is provided. However, comments will be accepted and can be mailed to: MT Dept. of Natural Resources and Conservation, State Water Projects Bureau, 1424 9th Ave., P.O. Box 201601, Helena, MT 59620-1601, attn. James P. Domino. Copies of the EA are available upon request. The EA can also be viewed on the DNRC website at www.dnrc.mt.gov. Thank you.

Sincerely,

A handwritten signature in blue ink that reads "James P. Domino".

James P. Domino
Environmental Science Specialist
State Water Projects Bureau

FINDING OF NO SIGNIFICANT IMPACT / NOTICE OF DECISION

August 26, 2011

Dear Reader:

On August 25, 2011 the Montana Department of Natural Resources and Conservation (DNRC) released a draft Environmental Assessment (EA) on the Frenchman Dam Sinkhole Repair Project.

Frenchman Dam is located in Phillips County, Township 34N, Range 34W, section 23, approximately 22 miles north of Saco. The land where the dam and reservoir are located is owned by the State of Montana and administered by the Montana Department of Natural Resources and Conservation, State Water Projects Bureau.

This project involves the emergency repair of a sinkhole that developed on the dam crest, immediately adjacent to the outlet control tower in the spring of 2011. This sinkhole, which occurred due to sustained high flows this past spring and early summer, has the potential of threatening the structural integrity of the dam if left unrepaired. The repair must be completed prior to the 2011/2012 winter season and subsequent 2012 irrigation season to prevent a potentially dangerous situation from further developing.

The anticipated project start date is September 1, 2011, with the project expected to be complete by December 31, 2011. Due to the emergency nature of this project, no official public comment period was provided. The Montana Department of Environmental Quality, Montana Department of Fish, Wildlife and Parks and the U.S. Army Corps of Engineers were consulted and expressed no opposition to the project. The Montana Natural Heritage Program and the State Historic Preservation Office were also contacted.

Based on the EA's disclosure and analysis of potential impacts, the DNRC concludes that the proposed action will not result in any significant impacts. The DNRC will adopt the draft EA as the final EA and proceed with the preferred alternative. Copies of the Final EA are available upon request. The Final EA can be viewed on the DNRC website at www.dnrc.mt.gov in the Environmental Documents section. Please direct any questions to:

James P. Domino

State Water Projects Bureau
MT DNRC, P.O. Box 201601
Helena, MT 59620-1601
(406) 444-6622 e-mail: jdomino@mt.gov

Thank you for your interest.

Sincerely



Tim Davis
Water Resources Division Administrator



Frenchman Dam Sinkhole Repairs

Montana Environmental Policy Act Environmental Assessment



Frenchman Dam

**Montana Department of Natural Resources and Conservation,
Water Resources Division,
State Water Projects Bureau**

August, 2011

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Frenchman Dam Sinkhole Repair.

Draft Environmental Assessment and MEPA Checklist

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action:

Frenchman Dam experienced a sinkhole development immediately adjacent to the outlet control tower in the spring of 2011. This sinkhole developed along the air vent piping over the upper level, 24-inch outlet. This sinkhole has the potential of threatening the structural integrity of the dam if left unrepaired. The repair must be completed prior to the 2011/2012 winter season and subsequent 2012 irrigation season to prevent a potentially dangerous situation from developing.

2. Agency authority for the proposed action:

The Montana Legislature enacted statute 85-1- 101(1) through (6) MCA, which states:
"It is hereby declared as follows:

(1) The general welfare of the people of Montana, in view of the state's population growth and expanding economy, requires that water resources of the state be put to optimum beneficial use and not wasted.

(2) The public policy of the state is to promote the conservation, development, and beneficial use of the state's water resources to secure maximum economic and social prosperity for its citizens.

(3) The state, in the exercise of its sovereign power, acting through the department of natural resources and conservation, shall coordinate the development and use of the water resources of the state so as to effect full utilization, conservation, and protection of its water resources.

(4) The development and utilization of water resources and the efficient, economic distribution thereof are vital to the people in order to protect existing uses and to assure adequate future supplies for domestic, industrial, agricultural, and other beneficial uses.

(5) The water resources of the state must be protected and conserved to assure adequate supplies for public recreational purposes and for the conservation of wildlife and aquatic life.

(6) The public interest requires the construction, operation, and maintenance of a system of works for the conservation, development, storage, distribution, and utilization of water, which construction, operation, and maintenance is a single object and is in all respects for the welfare and benefit of the people of the state.

1. Name of project: Martinsdale Reservoir North Dam Drain Monitoring Improvements.

3. Name, address phone number of project sponsor :

State Water Projects Bureau, MT. Dept. of Natural Resources &
Conservation, 1424 9th Ave., P.O. Box 201601, Helena, MT 59620–
1601 (406) 444-6646

4. Construction Timeline:

Estimated Commencement Date: September 1, 2011

Estimated Completion Date: December 31, 2011

Current Status of Project Design (% complete) 75%

5. Location affected by proposed action (county, range and township):

Frenchman Dam is located in Phillips County, Township 34N, Range 34W, section 23, approximately 22 miles north of Saco. The land where the dam and reservoir are located is owned by the of the State of Montana and administered by the Montana Department of Natural Resources and Conservation, State Water Projects Bureau.

6. **Project size -- estimate the number of acres that would be directly affected that are currently:**

	<u>Acres</u>		<u>Acres</u>
(a) Developed:		(d) Floodplain	<u>0</u>
Residential	<u>0</u>		
Industrial	<u>0</u>	(e) Productive:	
(b) Open Space/Woodlands/Recreation	<u>0</u>	Irrigated cropland	<u>0</u>
		Dry cropland	<u>0</u>
(c) Wetlands/Riparian Areas	<u>0</u>	Forestry	<u>0</u>
		Rangeland	<u>0</u>
		Other	
		(dam embankment <u>5 acres</u>	
		and road across dam	
		crest)	

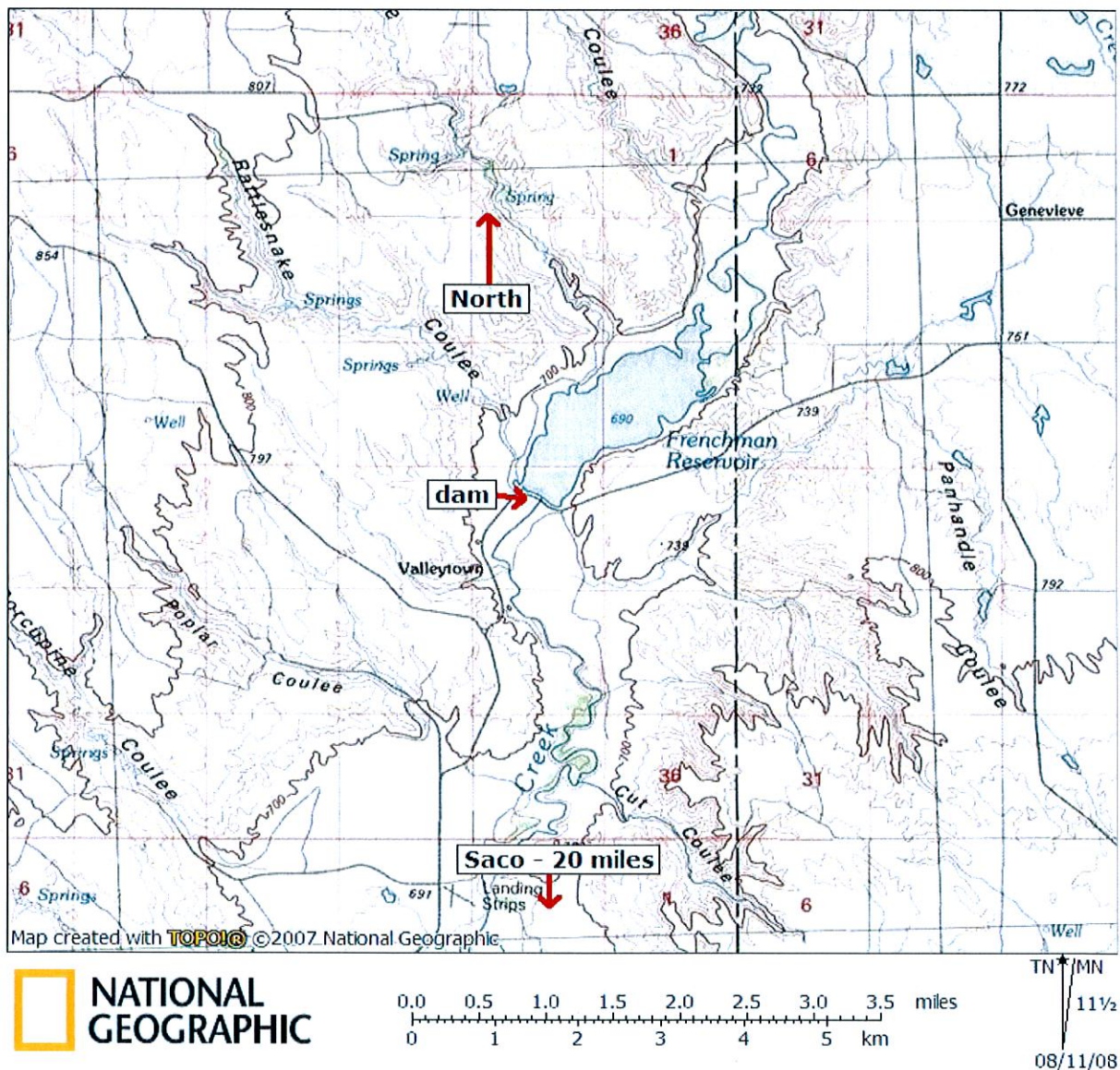


Figure 1. Local area map of the Frenchman Project

7. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits: All permits will be obtained prior to applicable project construction.

The following permits would be needed:

<u>Agency Name</u>	<u>Permit</u>	<u>Status</u>
MT Fish, Wildlife & Parks	Short-Term Exemption from Surface Water Quality (318 Authorization)	Pending
MT Fish, Wildlife & Parks	Stream Protection Act Permit	Pending
Corps of Engineers	Federal Clean Water Act (404 Permit)	Pending
MT Historic Preservation Office	Cultural Clearance	Pending
MT DNRC Dam Safety	Construction Permit	Pending

(b) Funding:

The current estimated cost for the repair of the pipe is \$100,000 for construction, and \$55,000 for exploratory drilling and engineering design. Although DNRC will be utilizing our internal emergency funding sources initially, we anticipate that the Frenchman Water User Association will fund a significant portion of the project. The Federal Emergency Management Agency is also reviewing this project to determine if it qualifies for reimbursement. Should that be the case, internal DNRC funds will be reimbursed prior to reimbursement of private funds.

Estimated Total Project Cost \$155,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
State Historic Preservation Office	Cultural Resource Protection

8. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action:

Frenchman Dam experienced a sinkhole development immediately adjacent to the outlet control tower in the spring of 2011. This sinkhole developed along the air vent piping over the upper level, 24-inch outlet. The 24-inch concrete pipe had been repaired at this location in 1999. Immediately downstream of the control gate an open joint had developed in the pipe and some amount of surrounding soils had eroded into the pipe leaving a void space. It was determined that the void space appeared to be limited by probing through the opening. The open joint was repaired at that time by filling the opening with cement mortar. At the time of the repair it was also noted that the concrete pipe had a sag at the location of the open joint.

In March of 2011, when the sinkhole was identified, DNRC excavated an exploratory test pit at the sinkhole location. The test pit extended to a depth of 6.5 feet and the void was observed to extend beyond that depth. Frozen soils and ice lenses were encountered over the full depth of the excavation. The depth of excavation was limited to avoid excavating to an elevation approaching the reservoir level. The test pit was filled with a road gravel mix that was compacted using a "turtle" plate compactor. Subsequently, a new void extending to the ground surface was observed immediately adjacent to the road mix backfill.

DNRC has completed additional inspections including camera inspection of the inside of both the upper and lower outlet conduits the air vent piping for both conduits. No defects that would allow soil to erode into the conduits have been found. The grout repair that was completed in 1999 appears to be in good condition.

A number of possible explanations for the development of the sinkhole have been considered by DNRC personnel. While it appears likely that the sinkhole and void is related to the area that was repaired in 1999, there are other explanations that cannot be ruled out without further investigations. It is possible that the void extends to the low level conduit. Both the upper and lower outlet gates are in poor condition and generally in need of replacement. The sag in the upper conduit is a concern as it represents an area where the pipe is not adequately supported by surrounding soil.

This project is being initiated to repair the sinkhole and to prevent further sinkhole expansion and development. Failure to repair this sinkhole could threaten the integrity of the dam, resulting in an increased threat to persons and property downstream, particularly should a major flood episode occur.

The proposed action involves a cut and fill operation to stabilize the affected area. Approximately three to five thousand cubic yards of material would be removed from the affected area and regraded into a new patch, with a new slope established that will tie into the existing grade. A fabric filter mat would be placed over the sub-grade, with a sand filter layer placed over the fabric. A tracked excavator, front-end loader and/or backhoe will be the equipment used for the project. The reservoir water level would be lowered to approximately 1000 acre-feet of water during the construction process, with the majority of the work performed above the water level. The reservoir will be slowly raised over the winter after the repairs are made.

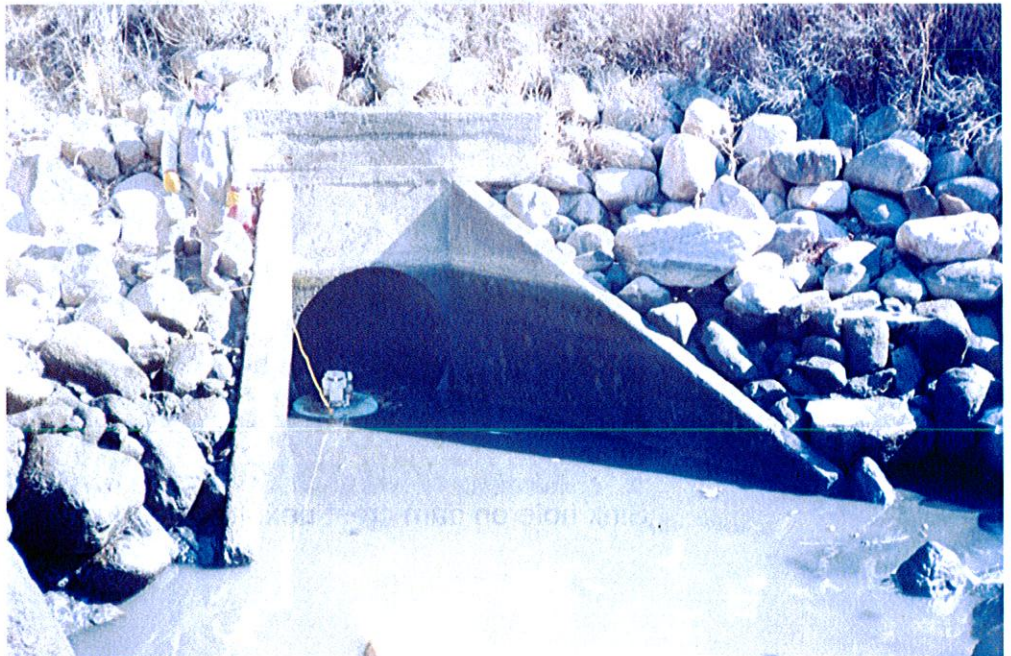
The anticipated project start date is September 1, 2011, with the project expected to be complete by December 31, 2011. This work is being performed to allow for the continued safe operation of the dam, and to insure the continued use of the stored water for agricultural irrigation, recreation and fisheries purposes.

The Montana Department of Environmental Quality (DEQ), Montana Department of Fish, Wildlife and Parks (DFWP) and the U.S. Army Corps of Engineers (COE) were consulted concerning the need for any environmental permits for this project. The State Historic Preservation Office (SHPO) was also informed of the construction.

Project Photographs:



Upstream face



Outlet



Downstream face



Sink hole on dam crest next to gatehouse

PART II. ENVIRONMENTAL REVIEW

- 1. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:**

Alternative A: No Action

This would allow an unsafe condition to further develop, potentially affecting the structure's integrity and increasing the risk to the public and property downstream. This risk would increase over time; particularly should another flood event occur. In addition, the supply of irrigation water could be negatively affected, resulting in potentially severe hardship to the area's economy. Recreational use would be negatively affected and fisheries and wildlife resources associated with the reservoir could be harmed should the safe operation of the dam be compromised.

Alternative B: Proposed Action / Preferred Alternative

The proposed repair would immediately address an unsafe condition and enhance dam safety and longevity. Protecting the area's agricultural based economy, providing irrigation and stock water, protecting fisheries resources, wildlife habitat, and recreational use would be achieved under this alternative.

- 2. Evaluation, listing of mitigation, stipulation, or other control measures enforceable by the agency or other government agency:**

Other than the requirements associated with the permits mentioned in Section 7(a) on page 5 of this report, there are no formal stipulations of mitigation or other controls associated with the proposed action. This action does not involve any permanent or long-term permits or granting of a license on which stipulations would be placed.

PART III. PUBLIC PARTICIPATION

- 1. Describe the level of public involvement for this project if any, and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?**

The public will be notified by way of a public notice on the DNRC web page at www.dnrc.mt.gov. Individual notices will be sent to the State Water Projects Bureau standard EA distribution list (as presented on the cover page of this EA) and to those that have requested a copy. No official public comment period is proposed for this project due to the emergency nature of the repairs.

PART IV. EA PREPARATION

- 1. Based on the significance criteria evaluated in this EA, is an EIS required? If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.**

Based on an evaluation of the primary, secondary, and cumulative impacts to the physical and human environment under the Montana Environmental Protection Act (MEPA), this environmental review found no significant impacts from the proposed action. In determining the significance of the impacts, the DNRC assessed the severity, duration, geographic extent, and frequency of the impact, the probability that the impact would occur or reasonable assurance that the impact would not occur, growth-inducing or growth inhibiting aspects of the impact, the importance to the state and to society of the environmental resource or value affected, and precedent that would be set as a result of the proposed action that would commit the DNRC to future actions; and potential conflicts with local, state or federal laws. Therefore, an EA is the appropriate level of review and an EIS is not required.

- 2. Name, title, address and phone number of the person(s) responsible for preparing the EA:**

James P. Domino
Environmental Science Specialist
State Water Projects Bureau
Montana Department of Natural Resources and Conservation
1424 9th Avenue, P.O. Box 201601
Helena, MT 59620-1601
(406) 444-6622
E-mail jdomino@mt.gov

- 3. List of agencies consulted during preparation of the EA:**

Montana Department of Fish, Wildlife & Parks
Montana Department of Environmental Quality
U.S. Army Corps of Engineers

PART V. ENVIRONMENTAL REVIEW CHECKLIST

4. Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X			1b.
c. **Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			1d.
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources:

1 b & d.) Site disturbance would occur on the upstream and downstream sides of the dam, and along the dam crest. Some soil compaction may occur due to equipment operation. Approximately 3000 cubic yards of soil would be removed and regraded into a patch to repair the sinkhole. Effects would be minor in the short-term due to the majority of the work being accomplished above the water level, and the lowering of the reservoir before construction begins. Effects are negligible in the long-term because of reclamation of areas disturbed during construction.

2. <u>AIR</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)			X			2a.
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (attach additional pages of narrative if needed):

2a. Minor and temporary emissions would be created by equipment during the repairs. The effect would be temporary, minor, non-significant and end with the completion of the project.

3. <u>WATER</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated*	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. *Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X			3a.
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X			3h.
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. Effects on any wetlands?		X				
M. other?		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources:

3a. The proposed action could potentially cause a slight increase in turbidity, but the increase would be very minor, temporary and non-significant. The risk is greatly reduced by completing all of the work when the work site is dry (above the water level). Some sediments could enter Frenchman Creek due to the lowering of the reservoir and flushing of the outlet conduit. The effects would be minor, temporary and end when the repairs are completed.

3h. The risk of water contamination exists due to equipment operation in the area around the dam. This impact is minor, temporary, non-significant and would end with the completion of the project. The risk would be mitigated by insuring that all equipment is properly maintained with no fluid or fuel leaks.

All these effects would be short-term and end with the completion of the project. No long-term significant impacts are anticipated to water quality as a result of the proposed action.

4. VEGETATION Will the proposed action result in?	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?			X			4b.
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4c.
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X			4e.
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Vegetation (attach additional pages of narrative if needed):4a.

4b. Some vegetation (grasses and small shrubs) would be disturbed from the excavation and construction. The impacts would be non-significant and minor and are negligible due to the reclamation and reseeding of the disturbed area.

4c. A Natural Heritage file search was performed. There are no documented observations of any threatened or endangered plants, or plant species of special concern in the vicinity of the project. .

4e. An increase in noxious weeds may occur due to soil disturbance and equipment operation. Effects are negligible in the long-term because of reclamation and weed control implementation.

** 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				
c. Changes in the diversity or abundance of non-game species?			X			5c.
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5f.
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X			5g.
h. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary effects on Fish and Wildlife (attach additional pages of narrative if needed):

5c.) The lowering of the reservoir will adversely impact reservoir fish; however the area is not noted for recreational angling and is not stocked with any game fish. Carp are the most common fish found in the reservoir. This impact will be temporary, minor and end when the reservoir is refilled beginning in the winter of 2011/12.

5f.) A Natural Heritage file search indicated that seven species of special concern are listed in the vicinity of the project: Grasshopper Sparrow, Chestnut-collared Longspur, Sprague's Pipit, Brewer's Sparrow, Great Blue Heron, Greater Sage-Grouse, and Iowa Darter. It is not anticipated that the proposed repairs will significantly impact any of these species.

5g.) Local wildlife within the immediate vicinity of the project location (e.g. mule deer, antelope, raptors, waterfowl, song birds) would experience a temporary increase in stress due to the construction activity. The wildlife would most likely avoid the immediate work site during construction. This impact would be minor, non-significant and end upon project completion.

Any potential impacts to fish and wildlife resources will be temporary, minor, short-term and end upon completion of the project.

B. HUMAN ENVIRONMENT

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Increases in existing noise levels?			X			6a.
b. Exposure of people to severe or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Noise/Electrical Effects (attach additional pages of narrative if needed):

6a. There will be a temporary increase in noise levels during construction. This would end after completion of the construction activity.

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Increase regulatory restrictions on private property?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Use (attach additional pages of narrative if needed):

8. <u>RISK/HEALTH HAZARDS</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		X				
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				
d. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Risk/Health Hazards (attach additional pages of narrative if needed):

9. COMMUNITY IMPACT Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Community Impact (attach additional pages of narrative if needed):

10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				10a.
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				
d. Will the proposed action result in increased use of any energy source?		X				
e. Define projected revenue sources						10e.
f. Define projected maintenance costs.						10f.
g. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Public Services/Taxes/Utilities (attach additional pages of narrative if needed):

10a. The proposed action would not have an effect upon or result in a need for new or altered governmental services.

10e. Funding sources are identified on page 5, Section 7 (b).

10f. All maintenance costs associated with the Project will be the responsibility of the Frenchman Water Users Association.

** 11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X			11a.
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?		X				11c.
d. Will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Aesthetics/Recreation (attach additional pages of narrative if needed):

11a. Construction will temporarily affect the aesthetics of the work site in the short-term.

11c. The area receives little angling and recreational use.

It is anticipate that the effects will be minor and non-significant in the long-term. The impacts would end upon project completion.

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. **Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				12a.
b. Physical change that would affect unique cultural values?		X				12b
c. Effects on existing religious or sacred uses of a site or area?		X				12c.
d. Will the project affect historic or cultural resources?		X				12d.
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Cultural/Historical Resources (attach additional pages of narrative if needed):

12a-d. The proposed project will not result in the destruction, disturbance or alteration of any known site, structure, or object of prehistoric, cultural, religious, sacred, historic or paleontological importance.

SIGNIFICANCE CRITERIA

13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u> Will the proposed action, considered as a whole:	IMPACT *				Can Impact Be Mitigated *	Comment Index
	Unknown *	None	Minor *	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)		X				13a.
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Is the project expected to have organized opposition or generate substantial public controversy?		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Significance Criteria (attach additional pages of narrative if needed):

13a. This EA found no significant impacts to the human or physical environment from the proposed action.

PART VI. NARRATIVE EVALUATION AND COMMENT

This EA did not reveal any significant negative impacts to the physical and human environment stemming from the proposed action. No threatened or endangered species would be significantly affected, and no unique or sensitive physical, cultural or historic features would be disturbed. The impacts associated with the actual construction will be short-term, minor and end with the completion of the project. Impacts associated with potentially small increases in the sediment loads, weed proliferation, fish and wildlife stress and aesthetics will be mitigated by reclamation, weed control efforts, and a relatively short project duration (i.e. impacts would end upon project completion). The proposed project will not affect public safety or the beneficial uses of reservoir water.

The no action alternative would result in an unsafe condition that could potentially affect the structural integrity of the dam. This could result in potentially serious, increasing risks to public health and safety, downstream property, and reservoir beneficial uses.

References:

Consultation with the U.S. Army Corps of Engineers, Helena MT. Regulatory Office, June 2011

Consultation with the MT Department of Environmental Quality, Water Protection Bureau, Helena, MT. June 2011

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June 2011

Species of Special Concern File Search, Montana Natural Heritage Program, Helena, MT. August 2011.

Frenchman Dam Manual for Operation and Maintenance, DNRC State Water Projects Bureau, 1424 9th Avenue, P.O. Box 201601, Helena, MT 59620, Published May 2001.

A Guide to the Montana Environmental Policy Act, John Munding and Todd Everts, 1998. Revised by Larry Mitchell, 2004 and Todd Everts, 2006. Published by the Legislative Environmental Policy Office, Environmental Quality Council.

Climax Vegetation of Montana Based on Soils and Climate, U.S. Dept. of Agriculture, Soil Conservation Service, Bozeman, MT. September 1976

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Frenchman Reservoir at full pool

